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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/604,001
Filing Date: June 26, 2000
Appellant(s): HOSSEL ET AL.

Jason D. Voight
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 04/07/05.

JJD

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences, which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows: Issue IV was taken care of in the Office action of 04/01/05 because the rejection of claims 14 and 15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention was withdrawn in the final rejection mailed 04/01/05 in light of applicants' persuasive explanation.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 2-13 and 15 stand and fall with claim 1 and claim 14 stands and falls alone for issue I; for issue II, claims 2-15 stand and fall with claim

1; issue IV was resolved in the Office action of 04/01/05. However, no reason was provided for finding that claims 2-13 and 15 stand and fall with claim 1 for issue I, and also that claims 2-15 stand and fall with claim 1 for issue II.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

5,219,969	UHL et al.	6-1993
5,869,032	TROPSCH et al.	2-1999

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

Claims 1-13 and 15 are rejected under 35 U.S.C. 103(a) as being obvious over Uhl et al. (US 5,219,969).

Uhl discloses water-in-oil emulsion and oil-in-water emulsion polymeric preparation wherein the preparation comprises divinylethyleneurea, N-vinylimidazole and 2, 2'-azobis (2-amidinopropane) dihydrochloride, and the polymerization of the monomers takes place by free radical process (abstract, column 4, lines 11-65; columns 9 and 10 and claims 1-5).
Uhl discloses obtaining crosslinked acrylic or methacrylic acid copolymers from copolymerization "(a) from 50 to 99 parts by weight of acrylic acid and/or methacrylic acid, (b) from 1 to 50 parts by weight of at least one N-methylol (meth)acrylamide or derivatives thereof, (c) from 50 to 10,000 ppm, based on the monomers (a) and (b), of an at least

bifunctional crosslinker, and (d) from 0 to 49 parts by weight of other mono ethylenically unsaturated monomers" and the polymerization takes place in the presence of free radical polymerization initiator in the aqueous phase of the water-in-oil emulsion (abstract; column 2, lines 26-59). In column 3, line 59, Uhl discloses that the copolymers contain bifunctional crosslinker; and the crosslinkers contain at least two nonconjugated ethylenically unsaturated double bonds (column 3, lines 60 and 61) and these crosslinkers having the nonconjugated ethylenically unsaturated double bonds meet the limitations of instant claim 1 (e). Examples of the crosslinkers provided in column 3, lines 62 and 63 are N, N'-methylenebisacrylamide, polyethylene glycol diacrylates and polyethylene glycol dimethacrylates. N-vinylpyrrolidone and N-vinylimidazole are examples of the other ethylenically unsaturated monomers (column 4, lines 28-31).

The difference between claim 1 and Uhl and as admitted by applicants is that Uhl uses at least 50% of the unsaturated acid and the claim 1 uses up to 40% of the unsaturated acid. However, there is no demonstration of unexpected result in the use of up to 40% vs. 50% of the unsaturated acid; and although applicants admitted of the difference, the admission was not followed by a showing of unexpected/unusual results of 40% of the instant claims over 50% of Uhl. Since the differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating the concentration is critical, it is not inventive to discover optimum workable amounts by routine experimentation. It is noted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare and use the composition of Uhl. One having ordinary skill in the art would have been motivated to optimize the amount of the acrylic or methacrylic acid with the

expectation of producing the desired cross-linked copolymer and in the absence of a showing, difference in amounts of the acrylic acid or methacrylic acid does not patentably distinguish the cross-linked copolymer of the instant claims over the cross-linked copolymer of Uhl. The preamble of claim 1 is the future intended use of a composition/product and future intended use of a composition/product is not accorded patentable weight.

Claims 1-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tropsch et al. (US 5,869,032).

Tropsch discloses a polymeric preparation that can be used in cosmetic compositions such as liquid soaps, body lotions, aftershaves, face lotion and other liquid formulation for skin. The polymeric preparation of Tropsch comprises 5-50% 1-vinylimidazole or quaternized 1-vinylimidazole (3-methyl-1-vinylimidazolium methylsulfate), 20-80% N-vinylcaprolactam, 10-60% N-vinylpyrrolidone, 2,2'-azobis(2-amidinopropane) dihydrochloride and polymerization of the preparation takes place by free radical polymerization; furthermore, the preparation contains perfume oils, emulsifiers, preservatives, collagen and vitamins (abstract, columns 1-4, formulations 1-10 and claims 1, 2, and 11-13). The composition of Tropsch is inherently an emulsion. The polymeric preparation of Tropsch comprises 1-vinylimidazole, quaternized 1-vinylimidazole, N-vinylcaprolactam, N-vinylpyrrolidone, 3-methyl-1-vinylimidazolium methylsulfate, 2,2'-azobis(2-amidinopropane) dihydrochloride and polymerization of the preparation takes place by free radical polymerization. Furthermore, the preparation contains perfume oils, emulsifiers, preservatives, collagen and vitamins. The composition of Tropsch et al. further comprises monomers selected from the group consisting of C_1-C_{12}-esters of acrylic or methacrylic acid, acrylamides and methacrylamides. See abstract, columns 1-4, formulations 1-

10 and claims 1, 2, and 11-13. Column 4, line discloses the presence or polyvinylamine. The polyvinylamine and vinylimidazoles meet the limitation of non-conjugated ethylenically unsaturated double bond containing moiety. The vinylimidazole is present in amounts of 5-50% and the range falls within the recited range and in the broadest interpretation meets the limitations of 1 (e).

The difference between Tropsch and the instant claims is that amount of the vinylimidazole, in the broadest interpretation meets the limitations of 1 (e) and also meets the limitation of 1 (a) falls within the range taught in the claim 1. But, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating the concentration is critical, it is not inventive to discover optimum workable amounts by routine experimentation. It is noted that it would have been obvious to one of ordinary skill in the art at the time the invention was made to prepare and use the composition of Tropsch. One having ordinary skill in the art would have been motivated to optimize the amount of the vinylimidazole with the expectation of producing the desired composition and in the absence of a showing, difference in ranges of amounts of the 1 (a) and 1 (e) does not patentably distinguish the instant composition over composition of Tropsch.

Double Patenting

Claims 1-13 and 15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-13 of U.S. Patent No. 5,869,032. Although the conflicting claims are not identical, they are not patentably distinct from each other because differences in concentration will not support the patentability of subject matter

encompassed by the prior art unless there is evidence indicating the concentration is critical, it is not inventive to discover optimum workable amounts by routine experimentation.

Claim 14 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 14, a monomer mixture, consists of 14 (a) and 14 (e) and optionally 14 (b) and 14 (d). The prior art does not disclose monomer mixture that consists of 14 (a) and 14 (e) and optionally 14 (b) and 14 (d).

(11) Response to Argument

Uhl et al. (US 5,219,969)

Appellants argue that appellants' copolymers differ from the copolymers of Uhl et al. (US 5,219,969) because appellants claims 1-13 and 15 require at most 40% by weight of unsaturated acid moieties while Uhl requires at least 50 parts by weight of (meth) acrylic acid; that a) the teaching of Uhl contains nothing that would have motivated the person of ordinary skill in the art to lower the amount of unsaturated acid from 50 parts by weight to 40% by weight or to exclude the unsaturated acid altogether, b) Uhl does not provide any suggestion that the person of ordinary skill in the art would be expected to successfully arrive at a "useful" polymer by lowering the unsaturated acid from 50 parts by weight to 40 % by weight, c) Uhl does not teach or suggest "a skin cosmetic or dermatological preparation" that contains zero or at most 40% by weight of unsaturated acid units.

Appellants' arguments filed 04/07/05 have been fully considered but they are not persuasive.

Regarding a) there is no demonstration showing that using at most 40% by weight of the unsaturated acid provides unusual and unexpected results over using 50% of the unsaturated acid to form the copolymer mixture.

Regarding b) the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the person of ordinary skill in the art has the technical know to optimize the emulsion composition by adjusting the amount of the unsaturated acid to obtain emulsion that would produce sharp and brilliant colors in prints. The amount of the unsaturated acid can be adjusted upwards or downwards depending on the emulsion desired to produce sharp and brilliant color of fabric.

Regarding c) it is noted that claim 1 is a composition claim and future intended use of compositions have patentable weight. However, the composition of claim 1 is described as preparation for decorative cosmetic (claim 1) and Uhl describes the emulsion containing the copolymers provides sharp, level, strong color and brilliance to the fabric and this aspect is decorative aspect that is related to cosmetic effect, which is similar to decorative cosmetic. Furthermore, the examined application recognizes the polymers as thickeners (page 13, line 14), Uhl uses the polymers for the same purpose (abstract). The claims are obvious Uhl et al. (US 5,219,969.

Claim 14 is objected to as dependent from a rejected base claim.

Tropsch et al. (US 5,869,032)

Appellants argue that (m)onomers of acrylic acid and methacrylic acid esters are not the same as constituent (e) of claim 1, which requires the cross-linker to have at least two ethylenically unsaturated, non-conjugated double bonds and the acrylate esters disclosed in Tropsch do not contain ethylenically unsaturated double bonds

---the alkyl group of C1-C12 alkyl esters of (meth) acrylic acid do not contain ethylenically unsaturated double bonds---

---the hydroxyalkyl group of the hydroxyalkyl (meth) acrylates do not contain ethylenically unsaturated double bonds---

---the alkylethylene glycol group of the alkylethylene glycol (meth) acrylates do not contain any ethylenically unsaturated double bonds

Appellants further state that Examiner implied in the previous Office action that all monomers of (meth) acrylic acid are capable of acting as cross-linking monomer.

In response to the above, it is noted that Examiner **does not imply** that all monomers of (meth) acrylic acid are capable of acting as cross-linking monomers but rather the examiner was referring to the section in Appellants' specification at page 8, lines 8-10, where monomers of acrylic esters, methacrylic esters, allyl ethers and vinyl ethers are suitable crosslinkers Examiner agrees with Appellants that the acrylate esters disclosed by Tropsch do not contain at least two ethylenically unsaturated, non-conjugated double bonds.

However, vinylimidazole contains at least two ethylenically ethylenically unsaturated double bonds and the claim at part (e) of claim 1 does not state that the part e cannot be

vinylimidazole. The polyvinylamines contain at least two ethylenically unsaturated double bonds.

Thus, claims 1-13 and 15 are rendered obvious by Tropsch et al. (US 5,869,032).

Claim 14 is objected to as dependent from a rejected base claim.

ODP Rejection over Tropsch et al. (US 5,869,032)

Appelant states that the obviousness-type rejection over Tropsch is in error because Tropsch is art under 35 USC 102(a) and/or 102(b).

The rejection is not in error when claims are found to be obvious over patent that has at least one common inventor or assignee. The rejection ~~is~~ will be withdrawn when Appellants take the necessary steps to overcome the rejection.

Claim Rejections - 35 USC § 112

The rejection of claims 14 and 15 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention was **withdrawn** in the final **rejection mailed 04/01/05** in light of applicants' persuasive explanation. Therefore, no further issues remain with 35 USC 112. For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

BF
August 31, 2005

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